

QV 7

Technical Data Sheet

Description

QV 7 is a seamless high speed polymer quartz lining. The mixture was particularly arranged in order to ensure an easy application, cleaning, maintenance as well as an impact and abrasion resistance in aggressive environment. After hardening there develops an impermeable seamless lining which is very skid-proof and resistant against a multiplicity of chemicals. QV 7 is suitable for vertical and horizontal executions.

Composition

QV 7 consists of a mixture of low viscous polymer quartz carrier materials, silica building materials of first-class assortment and an optional, light-genuine colouring material.

Recommended Applications

- Circular scraper bearing surfaces in waste water treatment plants
- Spiral draw works in waste water treatment plants
- Production roads and ways
- Pump columns
- Hydrodynamic tanks and gutters
- Concrete tanks and catch pans
- Repair of broken concrete soils
- Joint-loose back-up of tiles
- Stock chests in the paper industry
- Burying ranges from chemicals
- Forklift traffic
- Formation of joints with mechanical load
- Supporting columns
- Imbedding of machines

Features

- High pressure strength
- QV 7 adheres well on old as well as on damp concrete surfaces
- Good resistance with changing chemical operating conditions.
- Easy application
- Good structure ability enables a laying on to only one coating
- Tough polymer quartz structure resists to impact and variations in temperature
- Outstanding abrasion resistance
- Concrete surfaces may be pale damp, but must not show a visible water film
- Nonyl phenol free
- VOC < 500g/l
EU Directive 2004/42 (Decopaint-Directive):
According to the EU Directive 2004/42, the maximum allowed content of VOC (Product category AII/j/type SB) is 500 g/l (Limit 2010) for the ready to use product.
This product is in accordance with the EU Directive 2010.

Resistance

QV 7 is resistant to a multiplicity of chemicals, oils, fats, solvents, diluted organic and inorganic acids and caustic solutions and salt solutions.

QV 7 is not resistant to: Phenol, kresole, formic acid, ethyl acetate and similar solvent esters, acetone, ketone, chloroform and other halogen hydrocarbons.

Due to the reason that the resistance of the coating can be affected by various factors (medium, temperature, concentration, layer thickness etc.) we recommend to consult us prior to the application.

Technical Data			
Density (+23 °C)		ca. 1.10	g/cm ³
Volume solids		ca. 100	%
Viscosity (+23 °C)		ca. 700	mPa s ± 100
Compressive strength	DIN 53454	60-90	N/mm ² depending on filler ratio
Tensile strength	DIN 53452	> 30	N/mm ²
Modulus of elasticity	DIN 53457	ca. 3000	N/mm ²
Water absorption		< 1.0	%
Glass transition temperature		> 50	°C

Surface Preparation

1. Preparation of substrate:

The concrete must be 21 days old, cured and the substrate has to be dry. It may not be available standing water on the surface or in the pores; no water or humidity may pursue from the background. The concrete must have a good grip, must be fixed and load-carrying (min. B 25). Blasting up to load-carrying, fixed mass concrete, tearing off value on the average 1.5 N/mm², smallest individual value at least 1 N/mm², residual moisture content must not be above 5 % in 2 cm depth (measured e. g. with CM equipment). Subsequently, the dust has to be removed carefully.

2. Priming:

The prepared background must be primed with QV 7 G/GR. The priming should take place by means of brush or roller. With damp surfaces it is extraordinarily important that the priming is trained into the background. It may not be available standing water.

For the preparation of other surfaces, kindly contact us.

Preparation of Material

The material is delivered in proper mixing ratio. Put the curing agent completely into the basic material and agitate carefully, preferably with a mechanical agitator. Be sure to contact also bottom and sides of the container. Then add fillers and possibly colour pigments. Agitate another 3 minutes. Only prepare as much material as you can handle within pot life.

Mixing ratio 2.63 : 1) part by weight
(Part A : B)

Application Instructions

Conditions of object:

Temperature of substrate and air no less than +7 °C, max. +40 °C, relative air humidity max. 85 %. Low temperatures delay curing and aggravate treatment. The conditions of object have to be observed during treatment and curing time.

Expansion joints must be taken over with and have to be filled after curing with joint mass.

Pot life in minutes:

	+8 °C	+23 °C	+30 °C
Systempack	ca. 40	ca. 25	ca. 15

This schedule states the practical curing time from beginning of mixing.

Composition of Coating/ Material Consumption

QV 7 can be applied with a minimum thickness range of 2 mm.
Productivity: 2 mm – 3 m²
The practical consumption depends on quality of surface and the method of application.

Re-coating Intervals/Sequence Coatings

QV 7 is re-coatable with itself after max. 16 h at +20 °C. Surfaces have to be clean, dry, free from oil and grease. When exceeding the interval times, surfaces have to be roughened. The re-coating interval shortens strongly through sun influence. Appropriate safety measures must be taken.

Curing Time

	+8 °C	+23 °C	+30 °C
First contact with water:		24 h	
Light load:	24 h	12 h	6 h
Mechanical load:	48 h	16 h	12 h
Chemical load:	5 days	3 days	2 days

The above mentioned values are standard values. Variations caused by practical requirements or conditions are possible.

Packing Units

The material is supplied in the following size:
Part A 4.35 kg and part B 1.65 kg

Cleaning

All tools should be cleaned using industrial solvents (acetone, xylene, alcohol, methylethylketone) before the material hardens. If the material is allowed to set, it can only be removed by mechanical means.

Storage

The material should ideally be stored under dry conditions and temperature between +15 and +25 °C, at temperatures < +10 °C crystallisation is possible. Divergence during transport is acceptable. The storage period is 12 months in unopened containers.

Safety Instructions

For the handling of our products, the significant physical, safety-related, toxicological and ecological data according the substance-specific safety data sheet are to be extracted. The applicable rules and regulations, such as for example the Hazardous Substances Regulation, have to be observed. A detailed safety data sheet will be delivered with the material or is available upon request.